

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE FULL RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF MD 450 (ANNAPOLIS ROAD) AND MD 769C (48TH STREET) IN PRINCE GEORGE'S COUNTY. LED VEHICULAR SIGNAL HEADS, ACCESSIBLE PEDESTRIAN SIGNALS, COUNTDOWN PEDESTRIAN SIGNALS, VIDEO DETECTION FOR PRESENCE AND SAMPLING WILL BE INSTALLED. MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH MAINLINE AND SIDE STREET PERMISSIVE PHASING. MAINLINE AND ALTERNATE SIDE STREET PEDESTRIAN PHASING WILL BE INSTALLED.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, AND ASSOCIATED HARNESSES IN A NEMA SIZE '6' BASE MOUNTED CABINET. INSTALL ONE (1) VIDEO DETECTION INTERFACE FOR I-4 CAMERAS AND ONE (1) CENTRAL CONTROL UNIT.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS ANNAPOLIS ROAD

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS ANNAPOLIS AT 48TH, WAIT".
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

TO CROSS 48TH STREET

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS 48TH AT ANNAPOLIS, WAIT".
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3 / OOTS ARE AS FOLLOWS:

District #3

Ms. Felicia Murphy
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Victor Grafton
District Utility Engineer
Phone: 301-513-7350

Mr. Vernon Stinnett
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Kevin Nowak
Assistant District Engineer - Construction
Phone: 301-513-7385

Office Of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Team Leader Signal Operations
Phone: 410-787-7650

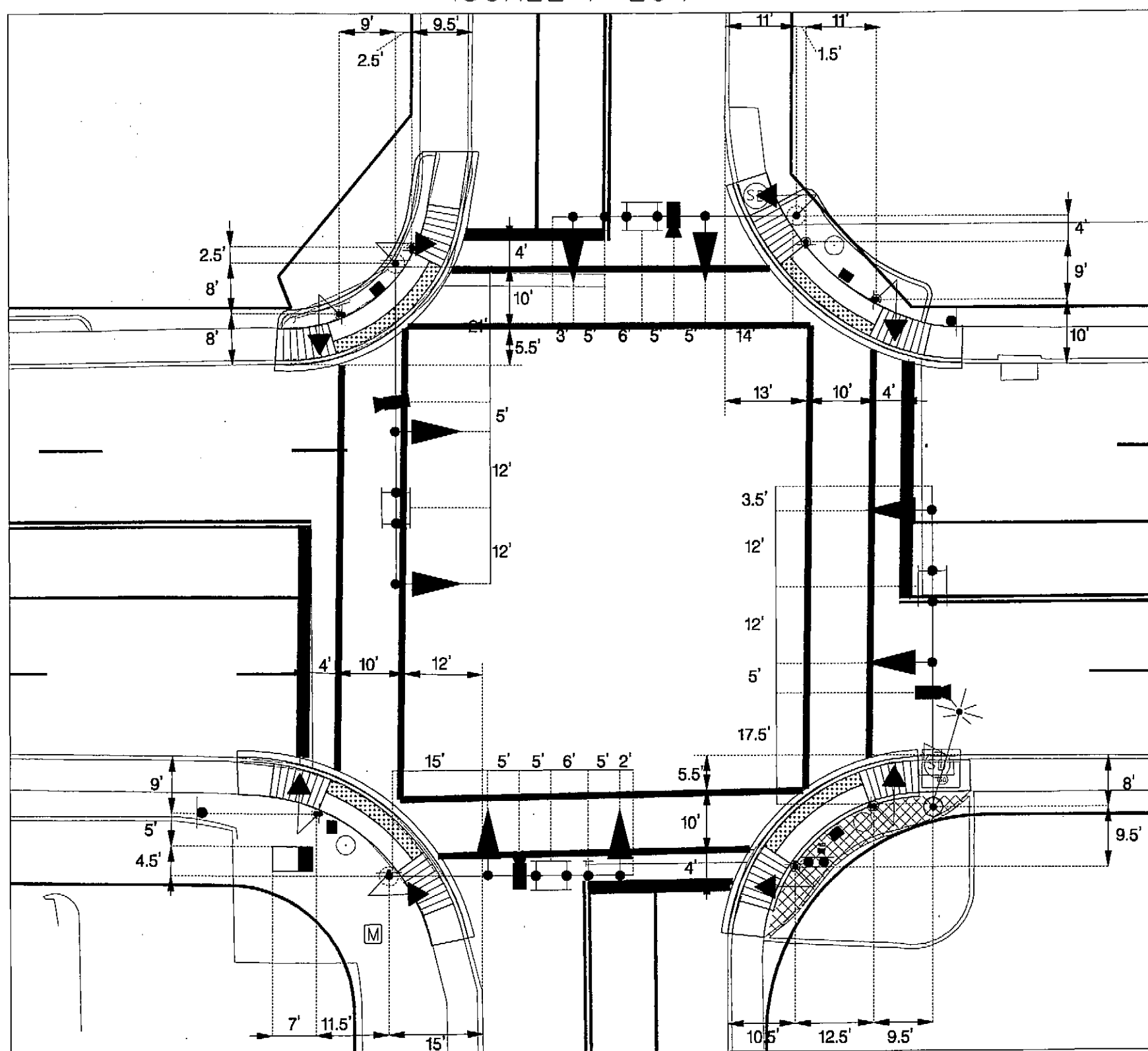
Mr. Eugene Bailey
Team Leader Sign Operations
410-787-7670

The Power Company Representative is:
Potomac Electric Power Company
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: I-4 CAMERAS
9570	23 SF	[UPDATED] SHEET ALUMINIUM GROUND MOUNTED SIGN 2 EA - M1-5 "MD 201" (30 IN. X 24 IN.) 2 EA - M4-5 "T0" (24 IN. X 12 IN.) 2 EA - M3-1 "NORTH" (24 IN. X 12 IN.) 2 EA - M6-1 "RIGHT ARROW" (21 IN. X 15 IN.)
9571	134 SF	[UPDATED] SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGN: 1 EA - M1-5(6) (30 IN. X 48 IN.) "EAST, MD 450, RIGHT ARROW" 1 EA - M1-5(6) (48 IN. X 72 IN.) "EAST, MD 450, LEFT ARROW" 1 EA - M1-5(6) (30 IN. X 48 IN.) "WEST, MD 450, RIGHT ARROW" 1 EA - M1-5(6) (48 IN. X 72 IN.) "WEST, MD 450, LEFT ARROW" 4 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS ANNAPOLIS ROAD" 4 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS 48TH STREET" 2 EA - D3-1 (96 IN. X 16 IN.) "48TH STREET" DUAL FACED 2 EA - D3-1 (96 IN. X 16 IN.) "ANNAPOLIS ROAD" DUAL FACED 2 EA - R3-5(L) (30 IN. X 36 IN.) "MANDATORY MOVEMENT LANE CONTROL - LEFT"

PROPOSED SIGNAL EQUIPMENT
AND PAVEMENT MARKING LAYOUT
(SCALE 1"=20')

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
2002	6 CY	TEST PIT EXCAVATION
5004	550 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	150 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5006	100 LF	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	200 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
6001	400 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1,300 SF	5 INCH CONCRETE SIDEWALK
8001	1 EA	2 WIRE CENTRAL CONTROL UNIT
8006	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8007	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	7 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	8 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8015	2 EA	MAST ARM POLE & 38 FT MAST ARM ANY "T" DIMENSION
8018	2 EA	MAST ARM POLE & 50 FT MAST ARM ANY "T" DIMENSION
8021	1 EA	REMOVE AND DISPOSE OF MATERIALS AND EQUIPMENT PER ASSIGNMENT
8025	4 EA	VIDEO DETECTION CAMERA AND CABLE
8030	50 LF	CABLE I-CONDUCTOR, 2/0 AWG THHN, THWN (ALUMINUM)
8034	300 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8035	300 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	100 LF	WOOD SIGN SUPPORTS UP TO 4 X 6
8037	80 SF	DETECTABLE WARNING SURFACES
8038	157 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	550 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED (100 OR 200 AMP)
8045	100 LF	ELECTRICAL CABLE I-CONDUCTOR NO. 8 AWG-THHN/THWN
8046	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	24 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8054	1,100 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	1,250 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	850 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8058	200 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

TOD No: XX351-09
SHA No: PG769K57
MD 450 @ MD 769C (48th Street)

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 2 AND 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	R	R	R	R	FLOW	FLOW	FLOW	FLOW	DW	DW	DW	DW
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT.	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FLOW	FLOW	FLOW	FLOW
PHASE 4 AND 8 ALT. CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 450 (ANNAPOLIS ROAD)
AT MD 769C (48TH STREET)
BLADENSBURG, MD

GENERAL INFORMATION

SCALE NONE ADVERTISED DATE 7/2010 CONTRACT NO. XX3515168

DESIGNED BY MCG COUNTY PRINCE GEORGE'S
DRAWN BY MCG LOGMILE 160045000.33
CHECKED BY MTS TIMS NO. K037
F.A.P. NO. TOD NO.

TS NO. 543B-GI DRAWING SG-02 OF 02 SHEET NO. 02 OF 02

PLOTTED: Monday, June 07, 2010 AT 02:35 PM
FILE: I:\PROJECTS\4014253\4014253_007\Drawings\TRA\48th Street\SG-N002_MD450.dgn

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